Separating A Mixture

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8th Grade Science

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Let’s Remind Ourselves What a Mixture Is!

- A mixture is a material containing two or more elements or compounds that are in close contact and are mixed in any proportion.
- The ingredients of a mixture can be separated by physical means like filtration, evaporation, distillation, and magnetic separation.
- The constituents of a mixture retain their original set of properties.

There are 4 ways to Separate a Mixture

Leave space under each category for notes to add ☺

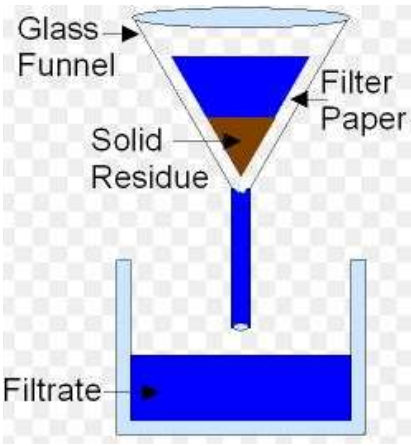
1) Using a magnet
2) Filtering the mixture
3) Evaporation
4) Distillation

Using a Magnet to Separate a Mixture

Iron can be removed from a mixture, when a magnet attract the iron filings.

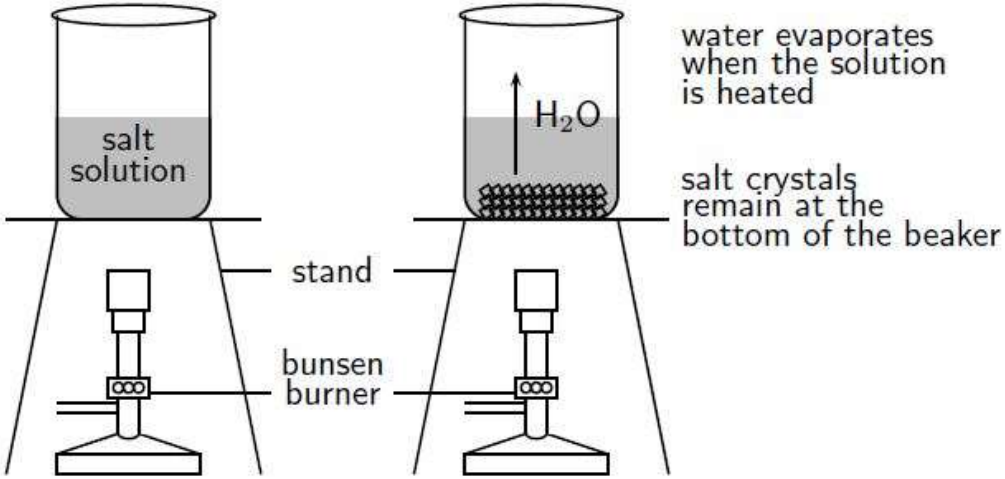
Using Filtration to Separate a Mixture

- Filtration is the mechanical or physical method used for the separation of solids from liquids.
- We use a filter through which only the fluid can pass.
- The fluid that passes through is called the <u>filtrate</u>.



Evaporation

We could use evaporation to omit (get rid of) the water in a solution and have the solid left behind.



Distilling a Liquid

Distillation is the process of heating a liquid mixture to form vapor and then cooling that vapor to get a liquid.

See an example of separating water and acetone here:

https://www.youtube.com/watch?v=V5ep0-ojPGw

Class Discussion

- How many of the methods above did we use in our “separating a mixture lab”?